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EDITORIAL

Health services for all in 2050 – getting the balance right

Vision 2050, the blueprint for the development of Papua New Guinea (PNG) over the next three and a half decades, envisages that by 2050 "we will be a Smart, Wise, Fair, Healthy and Happy society" (1). It may be pertinent to consider what role we as members of the medical and health professions should play in achieving this vision.

It is important to appreciate that health is not the prerogative solely of the medical profession. A healthy society results when its people are educated and understand that health is not just the absence of disease, know how to prevent ill-health and have access to an acceptable level of care when sickness occurs. This means that education, road and other transport systems and infrastructure, town planners, public health engineers and others all have major roles to play. But the medical and health professions are vital and have an important role in ensuring health and equity in health for the people of Papua New Guinea.

Readers of this editorial will not need to be reminded that Papua New Guinea has an under five mortality rate (U5MR) of around 60/1000 live births and infant mortality rate (IMR) of around 50/1000 live births, almost half of which is accounted for by neonatal deaths, has the highest maternal mortality rate (MMR) in the region and has a life expectancy of 62 years (2,3). Female literacy is estimated as less than 60% and approximately 50% of PNG's women deliver their babies unsupervised at home. Approximately 1 in 100 women will die as a result of pregnancy or childbirth (4). In comparison the corresponding figures for Fiji are U5MR 17/1000, IMR 15/1000, an MMR less than one-tenth that of PNG and life expectancy 69 years (3,4). Infectious disease is still by far the commonest cause of death in children and in adults, but there is a rapidly escalating epidemic of noncommunicable diseases fuelled by underlying genetic propensity and changes in diet and lifestyle (5). Tuberculosis (TB) is out of control and the emergence of multidrug-resistant organisms and of extremely-drug-resistant organisms is of very major concern (6). The population growth rate is 2.7% – a doubling time of around 25 years, with the urban sector growing much faster, accompanied by unplanned settlements with overcrowding, poor hygiene and social tensions. The ratio of health worker to population in 2000 was 0.58/1000 (5) – one-fifth that in Fiji and Samoa. A substantial proportion of the work force will have reached retirement age within the next 10-15 years. It is against this background that the Government, the National and Provincial Departments of Health and the medical and health professions should think about the way forward. The National Health Plan is visionary and ambitious, with a 'Back to Basics' approach aiming at "strengthened primary health care for all and improved service delivery for the rural majority and the urban disadvantaged". The plan also envisions specialist services at all provincial hospitals and the establishment of at least four regional specialist hospitals. Specialist services are expensive and important questions need to be asked and answered in relation to the type and scope of such services.

Inevitably there are tensions between clinicians, particularly specialists, and policy-makers as to the levels of subspecialization and technical requirements which are achievable, affordable and practical. Clinicians wish to do the best for their patients. Specialists and subspecialists are highly trained, usually with exposure to overseas practice involving highly technical diagnostic and treatment modalities. The desire to see such diagnostic and treatment facilities in Papua New Guinea is therefore not surprising. The hard reality, though, is that the PNG government is currently spending about 120 kina per person per year (5). This does not cover the cost of a single day in a hospital bed. Costs of hospital care in the public sector are not readily available, but a recent estimate of average cost per inpatient day in Palestinian hospitals of 90 $US and in a tertiary burns unit in India of 125 $US give some idea of the likely costs in PNG (7,8). The government has a responsibility to spend its money in a way which provides the best outcomes for the majority of the population.

We have to ask ourselves difficult questions and we may have to admit that whilst highly trained clinicians should have their say they are not necessarily the appropriate people to make decisions on how the health budget is spent. Do we want to see a country with state of the art dialysis units, coronary artery bypass surgery and highly sophisticated medical imaging for relatively few patients whilst tuberculosis is out of control with multidrug-resistant organisms, infectious diseases top the mortality charts, the noncommunicable disease epidemic marches on unchecked with people dying from untreated or inadequately treated diabetes and hypertensive disease, and people in rural areas are denied access to basic high-quality medical, surgical and other services?

Technology plays an important part in health services, but there is a need for careful and objective assessment of the place of sophisticated high technology in countries such as Papua New Guinea. The introduction of ultrasound into PNG in the early 1980s was greeted by some with a degree of scepticism, but within a relatively short time ultrasonography became widely available and has doubtless improved obstetric care and the non-invasive diagnosis of conditions such as pericardial effusion and renal and biliary calculi (9,10). Portable ultrasound machines can now be carried on rural health patrols. The recent introduction of oxygen concentrators linked with pulse oximetry and tied to training of staff has been demonstrated to reduce the mortality of children by as much as 35% (11). These are examples of relatively recent and relatively inexpensive technology which benefit large numbers of people. At the same time long-established diagnostic investigations – the simple X-ray and basic laboratory tests – whilst usually available in Port Moresby and the bigger hospitals are often non-functional or non-existent at smaller hospitals.

We live in exciting times. The prospect of almost unimaginable wealth from the extraction industries is tantalizing but how that wealth will be used to plan for and ensure the health of the population and to address the major problems of illness affecting the people of PNG is by no means clear.

In deciding how the country progresses in terms of health service provision government agencies and the people in them have a difficult task and have to make difficult choices. They are bombarded by interest groups pushing their own agendas, by politicians who may not have a broad understanding of the issues involved, and, yes, by doctors with special interests. At one extreme, the government could stop further development of hospital services and facilities and concentrate instead on the TB control program (which admittedly might include the construction and staffing of infectious disease units!), the HIV/AIDS (human immunodeficiency virus/ acquired immune deficiency syndrome) and sexually transmitted infection (STI) programs, family planning, maternal and child care and vaccination. At the other extreme it might choose to put the vast majority of its money into the building and furnishing of highly sophisticated superspecialty hospitals. Both extremes are untenable. In between these extremes it might opt for ensuring that all district health facilities, as well as the larger hospitals, are adequately staffed for their curative and preventive activities and have functional and well-maintained basic equipment. Decisions should be informed and objective, and it is crucial that the decision-makers get the balance right between improving curative services in the major centres, improving the less sophisticated services at the district hospitals and health centres, and providing sensible, practical and effective public health preventive interventions. The National Health Plan – whilst perhaps not to everyone's taste – is a good attempt at getting the balance right.

The plan outlines 8 key result areas (KRAs) to be achieved by 2020:

- Improve service delivery
- Strengthen partnerships and coordination with stakeholders
- Strengthen health systems and governance
- Improve child survival
- Improve maternal health
- Reduce the burden of communicable disease
- Promote healthy lifestyles, and
- Improve preparedness for disease outbreaks and emerging health issues.

Objectives and strategies for their achievement are outlined for each of the KRAs. Under improved service delivery the plan is to reinvigorate community-based services with the introduction of the Community Health Post, staffed by a minimum of three health workers with combined expertise in maternal and child health and community health in addition to general health service provision, the establishment of a district hospital in every district with medical officers on staff, the provision of specialist services in all provincial hospitals and the rehabilitation of at least four major provincial hospitals as regional specialist hospitals by 2030. All health institutions are expected to meet the appropriate Minimal National Standards.

These objectives are certainly laudable, but they require adequate numbers of appropriately trained health workers and they beg the question of where these health workers will be trained. The Papua New Guinea Development Strategic Plan 2010-2030 postulates an output of 200 new graduate doctors by 2021, 400 by 2022 and 700 by 2025. The strategic plan provides even more startling figures for nurses and community health workers (CHWs), projecting an annual output of 3000 nurses by 2025 and 2100 CHWs by 2024 (12). The recent World Bank report on Human Health Resources indicates that these figures are unachievable, and provides a "Recommended Preservice Training Scenario to Meet Key Health Human Resource Needs" (13). This scenario indicates a more realistic output of 100 medical graduates by 2019, 150 by 2023 and 200 by 2028. Comparable figures for both nurses and community health workers are 500 by 2019, 700 by 2023 and 800 by 2028. Given that the School of Medicine and Health Sciences is currently graduating between 45 and 50 doctors per year, nursing schools around 160, and CHW schools around 210, there is much to do if these relatively modest targets are to be met. The recommended scenario "leaves space for recurrent health resources to be allocated to a significant expansion of training – both preservice and inservice. It also leaves space for increased allocation of both support staff and quality-enhancing nonsalary budgets so necessary for improved health outcomes". Many health training institutions are currently understaffed and all are inadequately resourced. The training of adequate numbers of doctors, nurses, community health workers and other health professionals in appropriately staffed and resourced training institutions and the provision of career structures and incentives to keep them in the workforce present major challenges.

The allocation of government funding to the various service departments is itself a major balancing act. If the government is serious about achieving Vision 2050 it must make hard decisions to get the balance right and it must make a major investment not only in health service facilities but also in health training institutions.

As medical officers in our various disciplines and as health professionals, we all have our particular interests. But we should also be prepared to take a wide and balanced view of the development of health services in the future and do all that we can to persuade those making the important decisions to make them in the best interests of the majority of Papua New Guineans. It is vital that they get the balance right.

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REFERENCES

1 **Papua New Guinea Department of Treasury.** Papua New Guinea Vision 2050. Port Moresby: Department of Treasury, 2011:xii. www.treasury.gov.pg/html/publications/files/pub_files/2011/2011.png.vision.2050.pdf

2 **National Statistical Office of Papua New Guinea.** Demographic and Health Survey 2006. Chapter 7, Infant, Child and Maternal Mortality. Port Moresby: National Statistical Office, 2009:99-111.

3 **United Nations Children's Fund.** State of the World's Children 2012: Children in an Urban World. Statistical Tables: Table 1. Basic indicators. New York: UNICEF, 2012:88-91. www.unicef.org/sowc2012

4 **United Nations Children's Fund.** State of the World's Children 2012: Children in an Urban World. Statistical Tables: Table 8. Women. New York: UNICEF, 2012:116-119. www.unicef.org/sowc2012

5 **Government of Papua New Guinea.** National Health Plan 2011-2020. Back to Basics: Strengthened primary health care for all and improved service delivery for the rural majority and urban disadvantaged. Volume 1. Policies and Strategies. Port Moresby: Government of Papua New Guinea, Jun 2010. www.wpro.who.int/health_services/papua_new_guinea_nationalhealthplan.pdf

6 **Amini J, Poka H, Kumbu J, Pomat N, Ripa P,**

Tefuarani N, Vince JD, Duke T. The crisis of tuberculosis in Papua New Guinea – the role of older strategies for public health disease control. *PNG Med J* 2012;55:1-4.

7 **Younis MZ, Jaber S, Mawson AR, Hartmann M.** Estimating the unit costs of public hospitals and primary healthcare centres. *Int J Health Plann Manage* 2012;Nov 5. doi:10.1002/hpm.2147

8 **Ahuja RB, Goswami P.** Cost of providing inpatient burn care in a tertiary teaching hospital of North India. *Burns* 2013;39:556-564.

9 **Amoa AB, Wapi J, Klufio CA.** Longitudinal fetal biometry of normal pregnant Melanesian Papua New Guineans to construct standards of reference for Papua New Guinea. *PNG Med J* 1993;36:219-227.

10 **Richens J.** Experience with ultrasound on a medical ward in Papua New Guinea. *Trop Doct* 1987;17:99-103.

11 **Duke T, Wandi F, Jonathan M, Matai S, Kaupa M, Saavu M, Subhi R, Peel D.** Improved oxygen systems for childhood pneumonia: a multihospital effectiveness study in Papua New Guinea. *Lancet* 2008;372:1328-1333.

12 **Department of National Planning and Monitoring**. Papua New Guinea Development Strategic Plan 2010-2030. Part 4. Land, services, transport and utilities development strategies, 4.3 Health. Port Moresby: Department of National Planning and Monitoring, Mar 2010:47-53. http://www.treasury.gov.pg/html/publications/files/pub_files/2011/png-development-strategic-plan.2010-2030.pdf

13 **World Bank.** Papua New Guinea (PNG) Health Workforce Crisis: A Call to Action. Scenario 5, A Recommended Preservice Training Scenario to Meet Key Health Resource Needs. Washington, DC: World Bank, 2011:125-133.